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HISTORY OF THE CATTLE INDUSTRY IN THE SOUTH-
WEST¹

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I. THE SPANISH AND MEXICAN PERIOD

The cattle industry of the United States has always been a frontier activity. In early days it thrived wherever pastures were luxuriant. However, the settler has followed the grazer closely and has utilized the better land for agriculture, and only such lands as have proved too rugged, too alkaline, or too arid either for dry farming or agriculture, remain the seat of the grazing industry. West of the hundredth meridian are vast stretches of land of which the chief fault is aridity. To be sure, it is crossed by rivers fed by mountain snows, but they are small and far apart and some are lost in the sand. In many places water in small quantities may be secured by wells.

This region is not exactly a desert, for nature has supplied it with various kinds of native grasses and several other varieties of plants, more or less nutritious. The grasses which usually have high nutritive coefficients are most important and are peculiarly adapted to the needs of the stock grower. They spring up in the fall, and mature before frost. Thus a supply of winter forage stands in the pasture, while grasses in the region of plentiful rainfall remain green till frosted, when they become woody fiber unfit for food animals.²

The climate varies in the western part of the United States, but on the whole is quite well adapted to the needs of the grazer. The southern frontier is semi-tropical and the coast mild, but the interior uplands have short summers and long, severe winters. The cold is mitigated in many places by high sheltering cliffs

¹This paper was prepared in the seminar of Professor Bolton, at the University of California. It is not my intention in this article to present an exhaustive study of the history of the cattle industry in the southwestern part of the United States, but simply to summarize the chief features in the development of that industry.

²*House Misc. Docs.*, 48 Cong., 2 sess., II, no. 36, p. 294; *United States Department of Agriculture, Farmers' Bulletin* no. 27, pp. 22-27.

and forests, but the rancher finds it to his interest to provide shelter during the winter in the high elevations.

Cattle are not native to the United States. They were brought into what is now the southwestern portion of the United States by the Spaniards³ as early as the Coronado expedition in 1540. The first Spanish settlement in the Southwest was in New Mexico. Sheep were introduced and cattle were raised by the inhabitants of the colony before the revolt of the Indians in 1680.⁴ The cattle ran at will and wandered over large areas. Owing to the higher state of civilization of the Indians, the missions never attained the importance as industrial training schools here that they reached in other colonies. The industries were carried on by the settlers and the Indians who engaged chiefly in agriculture, stock-raising, and barter.⁵

In the later seventeenth century the energetic Jesuit missionary, Father Kino, introduced stock-raising into Arizona. In connection with missionary work he established ranches in the valleys of the Magdalena, the Altar, the San Pedro and the Santa Cruz Rivers. The labor was always performed by the Indians. In 1695 they revolted and drove off the cattle, but the work was re-established and thrived until Kino's death, in 1711, after which little progress was made before 1731. In 1767 the Jesuits were expelled, and the work was taken up the following year by the Franciscans. From 1790 to 1820 was a period of prosperity in Arizona. The Apaches were peaceful, the missions improved their industries, and ranches and haciendas were built in the region extending southeast and southwest from Tucson.⁶ Under the Mexican rule, the friars remained loyal to Spain and were expelled in 1827.⁷ Indians now raided the stock thus deserted. When the forty-niners passed through Arizona they found the Pima Indians raising cattle and using oxen for farm work.

Cattle were early taken into Texas. Bancroft notes that "In the spring of 1714, Louis de St. Denis went to the country of the Tejas,

³*House Ex. Docs.*, 29 Cong., 2 sess., XV, no. 107, p. 294.

⁴Hackett, Charles Wilson, "The Retreat of the Spaniards from New Mexico in 1680, and the Beginnings of El Paso," *THE QUARTERLY*, XVI, 159.

⁵*Ibid.*, 275.

⁶*Ibid.*, 405.

⁷Hamilton, Patrick, *Resources of Arizona*, 375.

where he found cattle in great abundance.”⁸ During the last half of the eighteenth century ranches were flourishing in eastern Texas. Antonio Gil Ybarbo is recorded as having a ranch “already a pueblo,” on which was a great number of cattle.⁹ When the settlers of the eastern frontier were forced to move to San Antonio in 1773, one of their hardships was that they lost their herds, which were widely scattered.¹⁰ Cattle ran wild on unsettled land, being known by their ear-marks. They were plentiful around San Antonio, and incredible numbers were reported between the Colorado and the Brazos and along the banks of the San Gabriel rivers.¹¹

But there was little to encourage interest in stock-raising. The climate and pastures were favorable to rapid increase of stock. The country was agricultural and produced an abundance of meat, hides, lard, tallow, wool, flour, grain, mules and salt, but the restrictions on trade made business unprofitable. In 1779, De Mézières quoted the price of a fat cow as four pesos, a three-year-old sheep, six pesos, and mares in droves a peso or less per head.

Trade with New Orleans, the chief market, was illegal, but the restrictions were relaxed when Louisiana was ceded to Spain. Droves of cattle, sheep, horses and mules were driven to this market usually in the autumn, for at that time rivers were fordable and pastures were good. Help on the drives was obtained at low wages. Droves were usually limited in numbers, as there was danger from stampedes.¹²

At the incoming of Austin’s colony, almost all of the settlers brought with them live stock—the so-called American “natives.” Some French cattle also came in from Louisiana.¹³ In 1830 there were said to have been 100,000 cattle in Texas, of which the Spanish breed numbered about four-fifths.¹⁴

⁸Bancroft, Hubert Howe, *North Mexican States*, I, 375.

⁹Bolton, Herbert E., “The Spanish Abandonment and Reoccupation of East Texas, 1773-1779,” in *THE QUARTERLY*, IX, 84.

¹⁰*Ibid.*, 86.

¹¹Bolton, Herbert E., *Athanase De Mézières and the Louisiana-Texas Frontier*, I, 106.

¹²*Ibid.*, II, 242, 293.

¹³*Census Report for 1880*, III, 965.

¹⁴*Ibid.*

After the Texan Revolution, "cowboys" gathered herds of wild cattle and drove them to the interior and to New Orleans in 1842. It is reported that a drove was taken into Missouri at the same date.¹⁵ Unbranded cattle found at large were declared public property of the Texan Republic at its founding, but the cattle were much neglected, as their value was small. Mexicans frequently raided them and drove them across the Rio Grande and Texans "mavericked" them.¹⁶

The term "maverick" in the cattle industry is derived from the name of a resident of Texas, who so neglected his herd that it became the practice of his neighbors to put their own marks upon unbranded, or "Maverick," stock.¹⁷

In California cattle were first raised at the missions. The Franciscan fathers brought stock with them from Lower California to San Diego in 1769, where they founded the first establishment.¹⁸ This was followed by twenty other missions, all of which became proprietors of large herds of cattle.¹⁹ The Spanish government established four presidios, which also engaged in cattle raising for their own consumption.²⁰ The missions were very prosperous. Hides and tallow were sold to Yankee traders along the coast, and meat not needed for local consumption was thrown away.²¹ Good hides passed current in internal commerce, being worth \$1.50 in cash or \$2.00 in goods.

Private Spanish or Mexican citizens also took up stock-raising. By 1830 forty ranches had been granted to private parties, but not more than half of them were occupied. A ranch contained from one to thirty square miles, on which the principal structure was the corral. Horses, cattle and sheep covered the hills and valleys. Several *rancheros* owned from ten to fifteen thousand

¹⁵*Ibid.*

¹⁶*Ibid.*

¹⁷Fulmore, Z. T., *The History and Geography of Texas, as Told in County Names*, p. 84. For another explanation see McCoy, G., *Historical Sketches of the Cattle Trade of the West and Southwest*, 9.

¹⁸*Census Report for 1880*, III, p. 1028. Bancroft, H. H., *History of California*, I, 137.

¹⁹*Census Report for 1880*, III, 1029. Hittell, *The History of California*, I, 317.

²⁰Bancroft, H. H., *History of California*, I, 170.

²¹Colton, Walter, *Three Years in California*, 441-8.

cattle each.²² The labor was performed on these ranches by Indians, who lived in rude huts. They were in reality slaves, but were termed peons.

In 1837, the Mexican Government pressed the secularization measure actively. When the friars became certain that the measure would be enforced they slaughtered many cattle for their hides and tallow. The Mexican Government took the remainder but failed to manage the business.²³

Neat cattle of Spanish pedigree were usually termed Spanish cattle. They were small and half wild in their nature. They yielded little milk, did not fatten well, and when fat did not yield the most juicy beef. Through the Southwest, in California and Texas particularly, there were until recently wild cattle living in the mountains and unsettled districts. They were supposed to be the offspring of cows which had escaped from the ranches in the valleys. They had thicker, longer and shaggier hair than domestic cattle.²⁴

II. DEVELOPMENT OF THE INDUSTRY

The announcement of the discovery of gold in California disorganized all lines of business activity in that section of country. Seamen, mechanics, and herders dropped their work and rushed to the gold fields. Moreover, the country was filled with adventurers who took possession of the ground of the defenseless landed proprietor.¹ Americans and foreigners braved the dangers of the desert, the Rockies and Panama to reach the gold fields. Early in 1849 San Francisco was only a pastoral hamlet, but it was not destined so to remain. During the first half of the year it is estimated that 15,000 people had been added to California's population. Of these 10,000 came by sea, landing at San Francisco. During the next half year arrivals averaged 4000 per month. Altogether about 40,000 landed at San Francisco during the year. Probably two-thirds of these proceeded to the mines or to interior points; but miners, fortunate and unfortunate, returned from the

²²Carson, James H., *Life in California*, 2-30.

²³*Census Report for 1880*, III, 1029.

²⁴Hittell, John S., *Resources of California*, 340.

¹Bancroft, H. H., *California Inter Pocula*, 87.

mines. By the close of 1849 the population of San Francisco was 20,000 or 25,000.² In the course of the year 1850 upward of 36,000 arrived by sea,³ while in 1853 the arrivals by sea exceeded the departures by 43,000 persons.

Such a phenomenal increase of population very soon brought about a scarcity of food. The ranches were unequal to the demand, not because of poverty of natural resources but because of the inadequate methods of production. In 1853 there were imported into San Francisco 20,000,000 pounds of butter, 700 barrels and 9400 boxes of bacon, 51,000 barrels of pork, and 16,000 barrels of beef.⁴ In brief, a market had been established. Not only had demand for the products of the ranch been created, but also plenty of gold was at hand as a medium of exchange. Likewise corresponding prices were created.

Eastern cattle were demanded and were soon brought in. At first they were inferior in size and appearance to the best California cattle, but after 1852 good cattle came in rapidly from the states.⁵ In 1855 and 1856 Texan cattle began to enter southern California. Cattle afforded a fine field for speculation, and some men found it more profitable than gold digging. Colonel Oliver Wheeler had arrived from Connecticut in 1851. He saw that the jaded, tired-out live stock brought in considerable numbers by eastern emigrants were not valueless, although their owners seemed to think so. He therefore met emigrants on the border of the desert and bought their lean stock for cash or for recruited animals. A fresh animal was exchanged for a dozen jaded ones, which rapidly improved when placed on grass along the mountains and rivers.⁶ Wheeler became proprietor of several ranches and engaged in driving cattle from the region of Los Angeles and San Francisco. He quickly grasped the need of a wholesale meat market at San Francisco. Accordingly he opened a market which soon used forty beeves a day, which he supplied

²Soulé, Gihon and Nesbet, *Annals of San Francisco*, 243.

³*Ibid.*, 300.

⁴Soulé, Gihon, and Nesbet, *Annals of San Francisco*, 243.

⁵*Census Report for 1880*, III, 1030.

⁶McCoy, *Historical Sketches of the Cattle Trade of the West and Southwest*, 257-258.

from his own ranches. When his own herds became depleted he purchased from others.⁷

In the meantime other persons were engaged extensively in the same occupation, and the number of cattle increased rapidly. T. Butler King estimated 500,000 cattle in California in 1850, and the population of the state at 120,000 people.⁸ He observed that the destruction of cattle for their hides and tallow had entirely ceased, in consequence of the demand for beef. Beef cattle sold at San Francisco for twenty to thirty dollars per head, as compared with one and a half to two dollars for their hides before the discovery of gold. He also estimated that there were grazing lands extensive enough to feed five times as many cattle as then were grazing on the ranches.

A few figures will show the growth of the cattle-raising industry. The United States census records 262,629 cattle for California in 1850 and 1,174,434 in 1860.⁹ The *California Register* records 448,796 in 1852; 684,248 in 1856; 722,374 in 1857, and 814,642 in 1859. Perhaps some of these figures are inaccurate, but they show that the industry had become very important by 1860. The laws of the state were favorable to stock-raisers. The following quotation is an extract from a speech before the California Agricultural Society in 1861:

Stock-raising has ever been (until very lately) one of the most lucrative branches of business within the state. Our laws have ever been very favorable to that branch of business, requiring cultivators of the soil to enclose their lands with good, substantial fences or otherwise submit to the depredations of stock, without any legal redress. This system of legislation had the effect to make all the lands in the state, not thus enclosed, free commons. Therefore, men with limited amount of capital could engage in stock-raising, making use of none other than our state's free forage for the subsistence of their herds.

A man who came to the state with some cattle bought a large stock ranch. Other cattle ranged over it and he was helpless. He found that the cost was too great to fence it, and told his story thus: "So, I just found a purchaser for my land, sold it to him, and then purchased more cattle with the money I had

⁷McCoy, *Historical Sketches of the Cattle Trade of the South and Southwest*, 260.

⁸Taylor, Bayard, *Eldorado II*, Appendix, 219.

⁹*House Ex. Docs.*, 38 Cong., 1 sess., XVI, No. 91, p. 250.

thus obtained, and left my cattle to roam wherever they pleased; and my whole herd continued, despite my purchaser's efforts, to roam as much on this very land as they did whilst I owned it."¹⁰

The farmers felt that the fencing laws worked great hardship on them. They claimed that the fences had cost them more than all the stock were worth.¹¹ This was at the time when the cattle industry was at its height, and decline soon followed. Cattle had been brought from Texas, Utah, and in 1860 from Oregon, mainly for slaughter. An estimate places the number of cattle in California in 1862 at 3,000,000.¹² At this date, however, we find that the cattle-raisers were lamenting that the number of permanent settlers was increasing to the detriment of their industry. So much land had been fenced for grain that the cattle were forced to live on such poor pastures that the loss by starvation was considerable. Formerly the cattle had changed pasture with the seasons. For example, during the rainy season they grazed on hills and upland; when the rains were over they came into the valleys. In this way the grasses were not killed out.¹³ The cowmen did not usually see that they were to blame for overstocking the land and thereby ruining their own industry. To be sure, it was limited by the increase of permanent settlers, but if no settlers had come it is probable that the grasses would have been killed. These grasses are annual and must come each year from the seeds scattered the preceding year. If no seeds are permitted to ripen, the land becomes barren, which actually occurred in certain districts during the early sixties.¹⁴

While the permanent settler caused the open range industry to decrease, he opened some new fields for the cattle industry. Fenced ranches of small dimensions,—containing a few hundred or a thousand acres,—were utilized for dairy purposes. As early as 1857 we find that a 480-acre ranch produced 3000 pounds

¹⁰"Report of the Fair of 1861," in *Transactions of California Agricultural Society*, 1861, p. 153.

¹¹Flint, Wilson, *The Fence Question* in *Transactions of California Agricultural Society*, 1863, p. 150.

¹²*Census Report for 1880*, III, 1030.

¹³Kellogg, A., "Trees and Shrubbery of the State," in *Transactions of the California Agricultural Society*, 1864, pp. 146-148.

¹⁴Perkins, Jas. E., "Sheep Husbandry in California," in *Transactions of the California Agricultural Society*, 1863, p. 139.

of butter, which sold for seventy-five cents per pound.¹⁵ Others soon took up this profitable industry. The dairy industry called for improved herds of cattle, and experiments were made to find what breed or breeds were most profitable. Opinions varied, but by 1872 it seemed that Durhams were in the lead. Others championed the superiority of the Ayreshire, and still others thought the Devons best adapted to hilly country.¹⁶ At this date Marin and Sonoma counties led in the dairy business. They had been settled mainly by Swiss, who were especially fitted to develop the industry. Some who had come in 1862 without money became prosperous very soon, being taxed on \$200,000 worth of property at the end of ten years' residence.¹⁷ It is evident that they did not belong to the class of short-sighted farmers who burned their straw as soon as it was threshed, and, after having lost a large number of cattle by starvation during the winter, complained that the season had been very hard on stock.¹⁸

A sudden and serious check came to the cattle industry generally in the state in the form of two successive years of drought in 1863 and 1864. Half the cattle starved the first year. Others were too weak to stand severe weather the next year and many died of exposure. Cows and calves died first, and it seemed as if the country would be swept clean of cattle. Again, cattle were killed for their hides and what tallow they had. About 5000 were killed at one establishment near Monterey, bringing a return of from two to four dollars per head.¹⁹

The result of the disaster wrought a revolution in the cattle industry. The Spanish stock largely disappeared. Proprietors of the great Mexican grants had tried to put off the survey so that they could sell more land than they had, or else they had refused to sell. They had great herds of cattle, but lost heavily during the long drought, some losing their entire herds. As a result they were now anxious to sell all or part of their land. Farmers

¹⁵"Report of the Visiting Committee," in *Transactions of the California Agricultural Society*, 1858, p. 212.

¹⁶Hoag, J. N., Report of the Corresponding Secretary, in *Transactions of the California Agricultural Society*, 1872, p. 190.

¹⁷*Ibid.*, 185.

¹⁸Flint, Wilson, "The Fence Question," in *Transactions of the California Agricultural Society*, 1863, p. 148.

¹⁹*Census Report for 1880*, III, 1030.

now purchased small numbers of blooded animals imported from the east and bred from these.²⁰

The farmers and small stock growers complained of the injustice of the existing fence laws, and as their numbers increased they secured the repeal of the law, county by county.²¹ Ranging over free land was replaced by ownership or lease. By 1880 there was little good government land to be had. Much land had been secured on soldiers' warrants. Swamp and overflow lands had been purchased for one dollar per acre, university grants had been sold for six dollars per acre, and school warrants for one dollar and twenty-five cents per acre. Some Mexican estates had been purchased by cattlemen who had paid \$25 per acre and for pastures for feeding purposes on drives; and again for marketing purposes they had paid as high as \$100 per acre. In Los Angeles county almost all the land for stock-raising remained covered by Mexican grants. In the eastern part of the county Basques leased the land at the annual rate of thirty cents per acre. Where the ranges of public land were held, the tenure was by "corralling" the water, that is, by taking up all the sources of water upon the range. Intrusion was thus prevented, as the adjacent country is tributary to the water privileges. An estate of 200,000 acres in Kern county contained all the available water of a region of 500,000 acres.²²

The ranches through the central part of the state were generally fenced. This type of ranch is illustrated by the Bloomfield Ranch in Santa Clara county. In 1880 the fence was made of redwood posts and pine boards. It was divided into pastures ranging in area from one hundred to twenty thousand acres. It comprised hill, valley, and bottom pasture. Claim was made that by confining the herd the cattle had become better tamed and were more easily handled by a few herders. It was further claimed that they bred more readily, and kept in better flesh than when on the open range. Beef cattle on the fenced range were fed in feed yards, and to a limited degree stall feeding was practiced. Stock cattle were held on the hill pastures during

²⁰Dunn, H. D., "California—Her Agricultural Resources," in *Transactions of the California Agricultural Society*, 1866-7, pp. 519-20.

²¹*Statutes of California*, 1872-1878.

²²*Census Report for 1880*, III, 1030.

the winter and spring. After the rains were over they were moved to the greener, fresher valleys and to the bottom lands in summer. In winter, hay was fed to such cows and calves as needed it.²³

Even though the unfenced range had gone largely out of practice, some were left in the more sparsely settled districts. The Tejón Ranch was a good example of the old style ranch. In 1880 it belonged to G. E. J. Beale, and included the original grants of Tejón, Castac, Liebre and Almos, comprising 200,000 acres in private ownership. It controlled the water supply of 300,000 acres of public land. Since 1854 this ranch has been stocked both by sheep and cattle, and in 1870 it contained 96,000 sheep. In 1879 a long lease having expired, General Beale, coming into direct control, purchased more cattle and gradually disposed of many sheep. A change was always made from summer to winter pasture. The summer was spent in the mountains or higher elevations. Cattle instinctively avoid these places in winter, preferring a sheltered valley or lower level. The summer pastures were entered about June and the winter pastures about the middle of October.²⁴

The leading cattle counties of northern California were Marin, Siskiyou, Sonoma, Humboldt, Modoc, and Lassen. In central California, San Luis Obispo led with over 42,000 cattle in 1880; Fresno, Kern, Sacramento, Monterey and Santa Clara followed in order of the number of cattle. In southern California, Santa Barbara and Los Angeles counties were in the lead. No large herds were found in San Bernardino county, and in San Diego county the droughts and the alkaline character of the soil work against the cattle industry.²⁵

The Bureau of Animal Industry prepared its first annual report in 1885. In discussing the general conditions of the cattle industry the writer said that California must be excluded from the range country proper, although stock-raising on range had been profitable in some sections. Fruit growing, wine making, and sheep raising had crowded out the cattle industry, and Cali-

²³*Ibid.*, 1032.

²⁴*Census Report for 1880*, III, 1030.

²⁵*Ibid.*, 1033.

fornia looked to Nevada rather than to its own ranches for a supply equal to local demand.²⁶

The rush into California for gold gave an impetus to the cattle industry of Utah. Enterprising Mormon traders lined the emigrant road from the Sweetwater to the Humboldt. In exchange for Indian ponies, they secured thousands of cows and steers of excellent breed, although they were exhausted, footsore and broken down. A few months on the nutritious pasture of Utah made them valuable. The numbers grew rapidly and the breeds were crossed with Short-horn, Devon, Hereford, Jersey or Ayreshire. The census of 1850 returned 12,616 cattle from Utah. Three years later a drove of 23,000 work steers described as fine, heavily fattened animals were driven to Sacramento market, where they were reported to have sold for two hundred or two hundred fifty dollars per yoke. Drives from Texas are recorded for 1861, and a year or two later from southern California. California was a market for part of the Utah products, but when it became so badly overstocked as not to need the Utah supply, cattle were driven into Nevada, Wyoming, Colorado, and later to Montana. From 1860 to 1873 the mining camps of Nevada furnished a market for Utah beef, and again during the construction of the Pacific railway the market was found nearer home.²⁷ About 50,000 head were driven into Wyoming and from there to Chicago in 1879, and 60,000 in 1880.

Cattlemen were not slow to utilize the grazing lands of Nevada. As early as the summer of 1855 Harry Gardier, a Frenchman, drove cattle across the mountains from California to Nevada. He continued this work, fattening his cattle in the Carson Valley, until in 1858 he was killed by men who wanted his cattle. In 1856 G. W. Huffaker bought cattle at Salt Lake City and drove them into the Truckee Meadows. During the early Comstock excitement he fattened the cattle and sold them as beef to the miners. Cattle of Texan variety were first herded on the Humboldt during the winter of 1859-60. Long Valley, in White Pine county, was occupied for herding purposes in 1869 by Alvaro Evans and Robert Moss. Nevada followed the example of Cali-

²⁶*House Misc. Docs.*, 48 Cong., 2 Sess., II, No. 25, p. 234.

²⁷*Census Report for 1880*, III, 1071. Bancroft, *History of Utah*, 729-730.

fornia by throwing the responsibility of fencing upon the farmer. By the decision of the supreme courts in 1880 cattle-raisers were even spared the expense of the herdsmen. This decision said that owners of stock were not liable for damage done to crops by cattle unless the land was so fenced as to exclude ordinary animals. Again, cattle had to be taxed at the residence of the owner instead of on the grazing grounds. A law of 1873 required each owner to have a brand, and a counter brand in case of sale. In 1881 an inspector of hides was provided. He might enter the premises of anyone and examine the brand on the hides. In 1884 the stock-raisers in Nevada estimated that they had about 700,000 cattle.²⁸

Thus it seems that the phenomenal impetus given to the cattle industry on the Pacific slope was caused and occasioned by the discovery of gold in California. The market of San Francisco and the various settlements proved a source of encouragement. Then the development of the mining interest in Nevada caused further demand for meat, for the army of laborers had to be fed. When the Union Pacific was completed a means of transportation was available by which meat, hides, or live cattle could be shipped to eastern markets. The "long drive" from these regions to eastern markets hardly deserved mention. It was not used and could not have been, as cattle would have been too lean and foot-sore to find purchasers.

That Texas had an abundance of cattle from Spanish days is an established fact. But the industry was not profitable, owing to the lack of market. Before the end of the Civil War herds were driven to California, Nevada, Utah, a few to Arizona and perhaps to Colorado and New Mexico, but these were for stocking purposes, and proved a very inadequate demand for the supply, thus little interest seemed to be taken by the ranchers. But demand in the east for beef from the west was inevitable. It did not have the sudden growth that the western markets felt, but a slow, steady development, due to the increase in population, the westward movement of the people, and development of mechanical industries in the eastern section of the country. It was hastened to a considerable degree by the Civil War, but if there

²⁸Bancroft, H. H., *Nevada, Colorado and Wyoming*, 247-8 (summarizes G. W. Huffaker's *Cattle Trade*. MSS.).

had been no Civil War the demand for Texan or western meat would have developed in New York and Boston at a somewhat later date.

The cattle industry is, of necessity, a frontier industry. When the population increases the herder must move to a new frontier or change his occupation; at the same time there is a stronger demand for his products. The ratio between the number of people and the number of cattle should be nearly constant. Dr. Silas Loomis estimated that every one hundred people require eighty meat cattle.²⁹ In the eastern states there were eighty-seven cattle to every hundred persons in 1840. In that estimate Texan cattle were not included, so the figures do not show the decrease of cattle in the eastern states. At that date the Texan cattle industry was at rather a low state of development, as some years were needed to restore order and prosperity after the Revolution. By 1860 Texas returned four hundred thirty-eight cattle to every one hundred people. That year the ratio for the nation was eighty-one to one hundred, showing an evident decline in the number of cattle in the east.³⁰ The compiler of these statistics said that in considering excess or deficiencies, the region west of the Rocky Mountains, because of isolation, should not be counted. He thought Texan cattle unavailable because they were mostly wild or not sufficiently domesticated to be driven to market in large numbers.³¹ In 1860 New England had a deficiency of 785,161 cattle, the Middle States had a deficiency of 1,564,526, while Ohio had a surplus of 46,227.³² At the close of 1860 the Southern States were well supplied with cattle.

The abnormal conditions of business brought about by the Civil War made a decided showing in the supply and demand for cattle. In the report of the Department of Agriculture for 1865 we find that "there has been a loss since 1860 by waste of war in everything except sheep. There has been great loss in the Southern States but a steady increase in stock in the Pacific States.

²⁹*House Ex. Docs.*, 38 Cong., 1 Sess., XVI, No. 91, p. 255.

³⁰*House Ex. Docs.*, 38 Cong., 1 Sess., XVI, No. 91, p. 256.

³¹*Ibid.*, 257.

³²*Ibid.*

The decrease in horses 10 per cent, mules 20 per cent, cattle 7 per cent, and swine 22 per cent."³³

Raids by the enemy, plus the burden of feeding the Confederate army, had caused a great reduction in the southern stock.³⁴ Texas was the least affected Confederate state. It was not the base of military movements, did not suffer from raids, but suffered from blockaded ports and lack of markets. The only important cities outside the state that had consumed any considerable quantity of Texan beef were Mobile and New Orleans, and these markets were controlled, in fact, practically monopolized, by the Morgan line of steamers plying between them and the Texan coasts. They had demanded such exorbitant freight rates as to debar practically all from shipping except members of the company. During the war this trade was stopped. A few droves of cattle were marketed to the Confederate armies by swimming the Mississippi River below Vicksburg, but Union gunboats made this too hazardous to be practiced. Texas could not, and would not sell to the North, so it was that a man's poverty was estimated by the number of cattle he possessed.³⁵ Ranchmen neglected their cattle and sold them at one or two dollars per head when a purchaser could be found.

If a man's poverty was measured by the number of cattle he possessed, there were some very poor men in Texas during the war. There was Colonel Richard King, who owned a ranch, known as the Santa Gertrudis Ranch, which embraced 84,132 acres. On it grazed 65,000 cattle, 10,000 horses and 8000 goats. Three hundred Mexicans and 1000 saddle horses were required for its management. The O'Connor Ranch on the San Antonio River contained 40,000 cattle; on it 12,000 calves were branded annually, and \$80,000 was realized from the sale of cattle.³⁶

At the close of the war prices were inflated. A beef sold for about eight cents per pound for six hundred pounds, as two-fifths of a thousand pound beef was allowed for hides and tallow. There is no record of the number of beeves slaughtered in the

³³*House Ex. Docs.*, 39 Cong., 1 Sess., No. 136, p. 69.

³⁴*Ibid.*, 246.

³⁵McCoy, *Historic Sketches of the Cattle Industry in West and Southwest*, 19-20.

³⁶*House Ex. Docs.*, 41 Cong., 3 Sess., XIII, p. 347.

United States, but in New York City alone at the close of the war 4,940,000 were killed annually.³⁷ Texan cattle were needed. Texan speculators determined to try their luck in the field, for cattle were worth several times their Texan market value in the North. During the winter of 1865 and 1866 large herds of beeves were collected to be driven North in the summer. One speculator went to a herd of 3500 cattle and purchased 600 choice beeves for six dollars each. For the next 600 head he gave three dollars each. The average of his 1200 head of cattle cost \$4.50, or about fifty cents per hundred pounds of gross weight. Mr. McCoy, a pioneer in the cattle industry, accepts these figures as approximately accurate.³⁸

Many unforeseen impediments lurked in wait for this enterprise. Organized bands of robbers in southern Kansas and Missouri assailed the drovers, and scattered and robbed the herds. If the drover had ready money he could buy a safe transit from the chief of the gang; but most drovers were unwilling to do so. Thus, of this large number of cattle, but few found their way to a profitable market.³⁹

Failures are sometimes stepping stones to success. Shrewd drovers believed railway transportation at reasonable rates from Kansas City to Chicago or some other large city to be the solution of the problem. Accordingly, Mr. J. G. McCoy set about securing an understanding with a railroad line extending at that time into Kansas. After some difficulty this problem was solved. But other difficulties arose. Cattle driven directly from the pastures of Texas into a northern state spread a disease among the northern cattle. Nearly all northeastern bound Texan cattle had to pass through Illinois, and some Illinois cattle had the Texas or Spanish fever. The Illinois Legislature passed an act excluding all Texan cattle from entering the state, if they had not been wintered on the plains north of Texas. It may be that the solons were also influenced by the effects of Texan competition on the Illinois cattle industry, but this is only a speculative remark.⁴⁰

³⁷*House Ex. Docs.*, 39 Cong., 1 Sess., Vol. 15, No. 107, pp. 300-301, Serial No. 1297.

³⁸McCoy, *Historic Sketches of the Cattle Industry of the West and Southwest*, 20-23.

³⁹*Ibid.*, 23.

⁴⁰*House Ex. Docs.*, 41 Cong., 3 Sess., XIII, p. 40. McCoy, Ch. IX.

Kansas became the wintering state, because of the sparse population, excellent pastures, and railway connection with the east. The law was conscientiously obeyed by many drovers, but less scrupulous ones did not find it difficult to get a warrant sworn to before a dishonest notary and send on cattle that had not been wintered.⁴¹

In 1860 the New York market was supplied mainly by New York and neighboring states, but in 1870 Illinois supplied 205,255 cattle to New York. Not all these had been raised in Illinois, but all western cattle (except Texan) brought through Chicago were credited to Illinois. In the same year Texas supplied 39,652 cattle to New York.⁴²

It will be interesting here to follow the price of cattle from the Texan ranch to the retailer's counter in New York. The drover bought cattle on the ranch. If only beef cattle were purchased, the price was twelve to fourteen dollars per head, but if he bought a miscellaneous drove, beeves cost eleven dollars, milch cows six dollars, three-year-olds seven dollars, two-year-olds four dollars, yearlings two and a half dollars. At Abilene, Kansas, the beeves sold for twenty dollars, milch cows for twelve dollars, three-year-olds for ten dollars, two-year-olds for eight dollars, and yearlings for five dollars. If the cattle had spent the summer on Kansas grass before the sale they were worth twenty to twenty-five per cent more. Beeves cost the importer thirty-one dollars in St. Louis and fifty-five dollars in New York. The retailer paid about eight cents per pound for the animal. Thus, a beef weighing 900 pounds cost seventy-two dollars.⁴³ But Texan beef was still looked upon with disfavor in New York, as is shown by a quotation from a report on markets published in the government report on agriculture for 1870: "The Alternative . . . is to pay a dollar beyond proper value of marketing at a fashionable stall, where meats are good, or to buy at a third rate stand, where the millions go, where vegetables are wilted, where the chickens are blue and the beef Texan."⁴⁴ On the other hand,

⁴¹McCoy, Ch. IX.

⁴²*House Ex. Docs.*, 41 Cong., 3 Sess. (Report of Department of Agriculture), 49.

⁴³*Ibid.*, 350.

⁴⁴*Ibid.*, 245.

packers claimed that Texan cattle lost less in packing than Illinois cattle, and that their hides were worth fifteen to twenty per cent more, because of more tallow.⁴⁵

When it was seen that Texan and other far western meat was salable, enterprising men actively took up the ranching industry. Before many years suitable and unsuitable lands were stocked beyond their capacity. Ill watered districts were stocked, and many animals were lost by thirst.⁴⁶ Regions that had been partially stocked now came into prominence. Among these was Colorado.

In 1847 St. Vrain and Bent had driven cattle from Texas to New Mexico, then into Colorado, and wintered them near Bent's Fort; but it seems that the nutritive quality of the grasses of the Platte Valley was not understood until 1858, when a pioneer, A. J. Williams, not having food for his eighteen oxen during the winter, turned them out on an island near old Fort Lupton to take the chances of living or dying by starvation. In the spring of 1859 he visited the islands, and, to his surprise, found the cattle alive and well. Accordingly, ranches were established on streams leading out from the Sierra Mojada and on the upper Las Animas.⁴⁷ In 1859 John C. Dawson made, so far as is known, the first cattle drive north from Texas into Colorado.⁴⁸ Cattle-raising was begun around Cañon City in 1862-63. In 1872 the first large herd was taken from Texas into the Wet Mountain region, and in 1876, 1500 Mexican cattle were placed in the Platte River Valley.⁴⁹ The growth of the industry in Texas may be shown by the number of cattle noted by the census of 1880, which returned 124,576, of which twenty per cent were calves. From this state 4921 cattle were sold in Chicago and 9519 in Kansas City the same year.⁵⁰

The Panhandle of Texas was first partially stocked in 1876. In November, 1877, Mr. Charles Goodnight having entered the Panhandle from southern Colorado, located a herd of 2200 head

⁴⁵*House Ex. Docs.*, 41 Cong., 3 Sess., XIII, 352.

⁴⁶*Ibid.*, 349.

⁴⁷Bancroft, H. H., *Nevada, Colorado and Wyoming*, XXV, 543.

⁴⁸*Census Report for 1880*, III, 940.

⁴⁹Bancroft, H. H., *Nevada, Colorado and Wyoming*, XXV, 544.

⁵⁰*Census Report for 1880*, III, 1005.

at the head of the Red River. The stocking continued rapidly, and by 1880 reports showed 225,857 head of cattle located there, in spite of the losses due to spring storms and black wolves.⁵¹ To the south, between the Panhandle and the hundredth meridian, the Shad brothers located a ranch in Wichita county. They were alone and exposed to Indian depredations. Later Daniel Wagoner brought in stock from Decatur and located a ranch twenty miles further down the Wichita River. The drawback to this region had been raids by the Kiowa and Comanche Indians. In 1874-1875 they were subdued and moved to reservations, after which date cattlemen from other parts of Texas began moving cattle into this region.⁵²

The annual cost of holding a herd, not feeding it corn in winter, was seventy-five cents per head in 1880 in the southern region and a dollar in the Panhandle, but Panhandle beeves brought twenty-three dollars in the Kansas market, while those further south brought only twenty dollars.

The cattle industry could not prosper in New Mexico and Arizona as long as the Indian tribes were unsubdued. Owners were ever in danger of losing their herds. The outrages were usually perpetrated by the Utahs, Apaches, Navajos, and Comanches.⁵³ The Pueblos and Moqui were industrious and needed friendly treatment, but the Apaches were very savage and were murderous as well as incorrigible robbers. They had no way of gaining a living except by stealing, and they influenced the Comanches to join them in raids which extended from New Mexico and along the Gila in Arizona to Chihuahua.⁵⁴ In spite of the dangers, there was a great increase in stock during the decade 1850 to 1860. The horses and mules grew in numbers from 13,733 to 21,357; cattle from 32,977 to 88,729; sheep from 377,271 to 830,116.⁵⁵

W. S. Oury seems to have been the first Anglo-American to attempt cattle-raising in southern Arizona. In 1858 he bought one hundred Illinois heifers and four bulls at Tucson from a

⁵¹*Ibid.*, 1005.

⁵²*Ibid.*, 973.

⁵³*House Ex. Docs.*, 31 Cong., 1 Sess., No. 5, p. 109.

⁵⁴Bancroft, H. H., *Arizona and New Mexico*, XVII, 462, footnote.

⁵⁵*Ibid.*, 645.

driver who was taking a drove through to California to improve the stock there. He placed this herd in the Santa Cruz Valley, where he held it for sixteen years. In spite of all his precautions the herd only numbered 400 at the end of this time. The Indians had enjoyed their portion of the beef.⁵⁶ In 1867 three herds, aggregating 800 cattle, were driven from New Mexico and located upon ranges along the Little Colorado, while another herd of 400 were driven from Utah to the same region. The land here was only slightly productive, and 50,000 acres were necessary to graze 1000 cattle. In 1869, H. C. Hooker of the firm of Hinds and Hooker, who were furnishing beef to the military department of Arizona, moved 4000 Texan beeves and stock cattle into the southern part of the territory near the Boboquivari Peak. Here the animals were fattened and distributed to the southern garrisons. In two years he lost 400 beeves, stampeded by the Indians. At the same time Mr. March began the ranching industry with 400 Sonora cattle in the Santa Cruz Valley, below Tucson. He suffered both from Indian and Mexican cattle thieves. The next year several Mexican cattle owners grazed herds of from twenty to seventy-five head in the same valley. In 1872 Mr. Hooker brought 10,000 Texan cattle into the Sulphur Springs Valley. From this herd beef was provided for the garrisons which were engaged in pacifying the Indians. The next year 1500 cows were brought, along with other cattle, and the range became a breeding range. Ranchmen were looking for a water supply adequate to the need of their herds, and by 1873 several important water claims were taken up.⁵⁷

By 1874 the Indians were practically subdued. The rancher could now develop his industry with a greater feeling of security. Herds were driven into northwestern Arizona, some being brought from Nevada and some from Oregon by the way of Muddy River, Rio Virgin, and Stone's ferry on the Colorado. After 1875 Texan and New Mexican herds were driven into this region. In 1880 cattle were driven from the Mojave and Kern county, California.

Ranges along the lower Gila were not very profitable. The country is too dry and hot. Cattle suffer from the heat and when

⁵⁶*Census Report for 1880, III, 1047.*

⁵⁷*Ibid.*, 1047-1049.

drought is long, they become so poor that they are unable to stand inclement winds. Alkali is abundant in the salt grass and in the water. Only hardy Mexican cattle do well in this region. In the Salt River Valley cattle are raised upon alfalfa which had been grown by irrigation. Both sheep and cattle have been held in the San Pedro Valley, which was settled by Mexicans in 1873 and 1874, and in 1876 a colony of Mormons settled below the Tombstone crossing with several lots of dairy cattle. There are several large ranges in the Pima country. In 1880 an American firm had 5000 cattle grazing. Another range fed 1500 cattle and several smaller ranches held from five to eight hundred at the same date.⁵⁸

As a part of the expansion of the cattle industry of Texas, Wyoming and Montana were stocked in the later seventies and earlier eighties. These severe climate in winter proved a great hindrance to the beginning of cattle. Thus these states were used more for the fattening of Texan animals than as breeding states, but there was quite a great increase by breeding. Pioneers in the industry made many mistakes in this region. Cattle were in many instances driven into new regions in the autumn. The country was strange, the poor animals did not know where to find water and were not acclimated. The blizzards always took a liberal toll among the unsheltered animals, and one cannot but feel that the love of gold had too firm a hold on cattlemen, who, eagerly grasping for wealth, made no provisions for the protection of their herds from hunger, cold, and thirst. The best results financially as well as humanely came when herds were brought in in spring or early autumn. Hay needed to be cut from unstocked ranges for the worst winter weather, and some kind of shelter in corrals or in the protected side of a cañon should have been provided.⁵⁹ Grazing grounds at great altitudes became graveyards of cows. The female animals succumbed first. It was said that in ten years the bones of a million Texan cattle were strewn on roads, on ranges and in shallow streams, a monument of man's cruelty to beasts.⁶⁰

⁵⁸*Census Report for 1880*, III, 1049.

⁵⁹Wilkinson, Frank, "Cattle Raising on the Plains," *Harper's Magazine*, Vol. 72, p. 789.

⁶⁰*Ibid.*, 793.

Following the construction of the Northern Pacific Railway, adventurers rushed into the northern states. Young men from the East, some of good families, who could command a few thousand dollars; Englishmen and Scotchmen with small and large capital, and also with no capital, came into the field. Profits frequently ran to fifty per cent per annum and adventurers paid two and three per cent per month interest to eastern capitalists. The year 1881-1882 was known as the cattle boom year.⁶¹ Such conditions could not continue indefinitely, and the profits fell as other forces, to be discussed later, limited the industry.

The interest of the United States government in cattle-raising and other animal industries was manifested by the establishment of a Bureau of Animal Industry, which began issuing reports in 1884. These reports dealt with many phases of this work, but gradually narrowed down to the scientific phase.

III. TRANSPORTATION.

The consumer lived far from the ranches where the beeves were produced. The success of the cattle industry depended upon the solution of the problem of adequate transportation. The long drive was the first method used. Although it was not generally believed in 1860 that Texan cattle could be driven successfully in herds, it was proved before 1870.

The proprietor of the ranch sometimes drove his cattle to market, but usually the drover was a speculator who purchased large herds and drove them to market. Ten or twelve cowboys were required to drive a herd of two thousand cattle. Large herds cost less per head to drive, but unless the trail was flanked by excellent, broad pastures, the advance herd exhausted the food supply and those in the rear went hungry.

After the ranchman had "rounded up" and "cut out" the animals to be sold, as a safeguard against arrest for theft he gave the drover a bill of sale which identified the ranch brand and the ear-marks of the animals. As a herd composed of cattle from several ranches was restless, the drive was begun promptly after all the cattle were brought in. The daily rate of travel was twenty-five or thirty miles for the first three or four days. The

⁶¹Aldridge, Reginald, "Life on a Ranch," *Nation*, Vol. 39, p. 293.

restlessness of the herd being diminished, the rate of travel dropped to about fifteen miles per day. A higher mileage caused too much loss of flesh.¹

Even though the long drive was romantic and picturesque, it was beset by many dangers. Stormy weather occasioned stampedes; large swollen streams sometimes incited "milling"; herds of buffaloes frightened and scattered the cattle; Indians were fond of beef and frequently fought skirmishes with the cowboys; and, last, but not least, were the outlaws who infested the states of Missouri, Kansas, and Arkansas.²

In Spanish and Mexican days cattle were driven from the vicinity of San Antonio to New Orleans. From New Orleans cattle were driven to Mobile, Alabama.³ Drives of this kind continued until 1860. During this period a few cattle were shipped by the Morgan line of steamers from the Texan coast to these two southern ports, but this method of transportation was in the hands of a monopoly. During the Civil War a few herds were driven to the Mississippi to feed Confederate soldiers. At the close of the war several attempts were made to reach Chicago by driving cattle to Sedalia or St. Joseph, Missouri, from which place they could be carried by rail to Chicago. A few herds were driven to central Iowa and sold there as feeders.⁴

By 1870 three important routes to eastern markets had become established. Coastwise steamers gathered up cattle in Texas, proceeded to New Orleans, from which place the animals were carried to Cairo by river boats. Thence they were carried to Chicago by rail. A second route from Texas was over a trail to shipping points on the Red River. River boats transported them to Cairo, whence they reached Chicago by rail. The third route was by trail into Kansas. The newly built railroads carried the cattle from stations along their lines into Chicago.⁵

It would probably be impossible to find a complete account of

¹*Census Report for 1880*, III, 990.

²McCoy, *Historic Sketches of the Cattle Trade in the West and Southwest*, Chs. 5 and 6.

³*University of Illinois Agricultural Experiment Station Circular*, No. 169, pp. 4-5.

⁴McCoy, *Historic Sketches of the Cattle Trade in the West and Southwest*, 29.

⁵*Yearbook of the U. S. Department of Agriculture*, 1908, 231.

all the trails used by drovers, and it would be somewhat unprofitable, but there are several trails over which such multitudes of bovines trod their weary way, either to the slaughter pen or the northern pastures for fattening, that mention must be made of them.

A famous trail over which cattle were driven from 1864 to 1885 began at the Gulf coast of Texas, passing northward west of San Antonio; thence to the Red River at Doan's Store, in Wilbarger county, Texas. Here it divided into two trails, one leading northward into what is now Beaver county, Oklahoma, thence west to the Colorado ranges. The other trail led northeasterly through the Fort Sill Reservation, now in Oklahoma. It crossed the Washita River at Anadarko, Oklahoma, trending northeasterly, crossing Canadian River, it led on through Fort Reno and Kingfisher, thence northward along the route of the railroad which now passes through Caldwell and Washita, to Abilene, Kansas.⁶

The Chisholm trail was named for John Chisholm. He was an eccentric old bachelor who resided in Paris, Texas, and engaged extensively in the cattle business. He accumulated much wealth and left his name on the trail over which he first led large herds of cattle. For a long time there had been a trail through Texas. It reached from the Red River in Cooke county to the southern part of the state. Chisholm forded the Red River near the mouth of Mud Creek and followed the creek to its source. Then he proceeded northward to Wild Horse Creek, west of Signal Mountains and crossed the Washita at Elm Spring. He went due north to the Canadian River, left it and struck Kingfisher Valley. He touched the head of Black Bear and Bluff Creek, then struck the south fork of the Arkansas, which was crossed at Sewell's Ranch. Near Caldwell the course was a little east of north. The Arkansas was crossed near Washita, where the famous "First and Last Chance" saloon with its signboard facing both ways, attracted the cowboys. Then he turned northeastward, striking Newton. He crossed the divide between Arkansas and Smoky Hill to the prairies south of Abilene. This trail, including its southern extension, was about six hundred miles long. It was from two hundred to four hundred yards

⁶*Yearbook of the U. S. Department of Agriculture for 1908, 229.*

wide. By corrosion it became lower than the adjacent fields. Weary animals had often died on the way, and their bleaching bones furnished a grewsome decoration to the path. Here and there a broken down wagon appeared along the way, and occasionally a mound rose up to remind the traveler that cowboys were mortal. A writer said that the wealth of an empire had passed over the trail, leaving its marks for decades to come.⁷

The Kansas trail was originated by Joseph G. McCoy. When he established the station at Abilene, Kansas, he dispatched lonely riders across the prairies to persuade the drovers of every herd which could be found to drive them to Abilene. However, they were not easily persuaded. A group of Californians driving about three thousand head were first to break the northern end of the trail. They went northeast, crossing the Arkansas near the present city of Wichita. In 1868, 75,000 cattle, and in 1869, 160,000 cattle traversed this trail.⁸

The Fort Scott and Gulf Railroad opened a shipping point at Baxter Springs, in southeastern Kansas. The trail leading to it was known as the "Old Shawnee Trail." It left the Red River near Snivel's Bend, about forty miles east of the starting point of the Chisholm trail, with which it ran nearly parallel for about one hundred miles. It was joined by a cross trail connecting with the Chisholm trail at Elm Spring. It trended eastward on the north side of the Shawnee Hills, crossed the Canadian near the Sac agency, then the North Canadian near the Fox agency. From this it passed through the Creek Reservation, fording the Arkansas west of Forts Davis and Gibson. It also was worn bare as a city street, and bore the same grewsome decorations worn by other trails. From the Shawnee country it reached Baxter Springs by an eastward path.⁹

The West Shawnee trail lay between the Chisholm and the Shawnee trails. It branched off the Shawnee trail near the Canadian River, trending nearly due north till it reached the Arkansas, which it followed into Kansas. It went up the White Water Valley, then north across the Cottonwood, along the Neosho and Clark's

⁷Harger, Charles M., "Cattle Trails of the Prairies," in *Scribners*, XI, 734.

⁸*Ibid.*, 733-4.

⁹*Ibid.*, 735.

Creek Valleys, ending at Junction City, twenty-five miles east of Abilene.¹⁰

In later years the Chisholm trail gave off a western shoot which left it near Elm Spring. Continuing past Fort Reno into western Kansas, it struck Dodge City.

The Goodnight trail, often called the Goodnight-Chisholm trail, was the route first used as a drive into New Mexico for cattle of west central Texas. Cattle were gathered about Fort Concho (now San Angelo), from which place the drive led west for about ninety miles, across the Staked Plains to Horsehead crossing on the Pecos River, about one hundred miles below Pope's Well. It thus crossed a sandy waste. The lack of water constituted the most serious obstacle on the way, which was a thirty or forty-hour journey. Beeves made the trip in less time, but a mixed herd required a longer period. If a herd started about 2 p. m., by the next afternoon the animals would be frantic for water. The work of the cowboys was not to goad them on but to hold them back. The stronger animals forced themselves ahead, the exhausted ones feebly straggling far behind. A few miles north of the Pecos River is an alkali pond into which the thirsty creatures would plunge, unless prevented, and drink, causing death. From Horsehead Crossing the drive followed the Pecos, entering New Mexico near Pope's Well. There it divided; one branch struck west along the Delaware River for El Paso, on the Rio Grande, and thence on to Arizona; the other struck off at the mouth of the Peñasco and proceeded west up that stream and across the divide to near Fulerosa, whence a general southwest course was made for Las Cruces, on the Rio Grande. The main Arizona trail led through Florida Pass. The great drive followed the Pecos nearly to the thirty-fifth parallel, thence across the divide to the Canadian River, twenty miles above La Cinta, then east to the Canadian, due north, entering Colorado either through Trinchora Pass, or by northwesterly divergence through Clifton, across the Ratón Mountains.¹¹

The Dawson trail followed the path traversed by John C. Dawson in 1859. He came out of Indian Territory into Kansas on the ninety-sixth meridian and drove north about thirty-five miles

¹⁰*Ibid.*

¹¹*Census Report for 1880, III, 990.*

above the confluence of Walnut Creek with the Arkansas River. Then he crossed the Little Arkansas at or near where Sedgwick City now is. This route followed the Arkansas, generally on the north side, to Pueblo. From Pueblo he went up the east bank of Fountain qui Brouille Creek to the present Little Buttes, where it turned off east to the head of Squirrel Creek, then northwest across the divide and down Cherry Creek to its mouth, where Denver has since become a city.¹²

California has no trails comparable to the Chisholm or other Texas trails. Cattle were moved about, but not in the same paths as were those driven to eastern markets, but the pathways worn by the animals as they traveled back and forth from lowland to highland have had a marked influence on the development of public highways. Instinct taught the heavy beasts the line of least resistance. Settlers learned that the paths thus made were more suitable for the use of highways than paths of their own selection.¹³

Wyoming and Montana were stocked as an extension of the industry in Texas. Trails had to be beaten out of this phase of the industry. Individual drovers had routes of their own, but generally the young stock skirted the foothills of the Rockies in drives to the northern regions. Texan cattle growers in convention at St. Louis, 1884, advocated the creation of a national cattle trail six miles wide, extending from Texas to our northern boundary. Northern cattlemen opposed this proposed trail vigorously for two reasons: (1) Texan cattle infected the region over which they passed and northern animals caught Texas fever by passing over the same ground; (2) they feared that 200,000 or 300,000 cattle driven to the north over the proposed trail would overstock the ranges and injure, if not destroy, the business.¹⁴ Drovers had already purchased a strip on each side of the Arkansas along the eastern border of Colorado, but the extensive development of railroads annulled the demand for such a trail.

During the seventies and eighties many of the western lines of railroad were begun and completed. These revolutionized the method of transporting beef to the East. Mr. Joseph G. McCoy

¹²*Ibid.*, 974.

¹³Reminiscences of an experienced cattleman, given orally to the writer.

¹⁴Wilkeson, Frank, "Cattle Raising on the Plains," in *Harper's Magazine*, 72, 792.

was the pioneer in adapting the Kansas railroads to the Texan cattle industry. He visited business men of Kansas towns to interest them in a stockyard and he consulted railway officials to obtain rates and accommodations. The president of the Kansas Pacific had not faith enough to attempt the work. The president of the Missouri Pacific was very rude to the shabby Texan ranchman, but the general freight agent of the Hannibal and St. Joseph line offered rates and closed a contract for the transportation of cattle over his line.¹⁵

In the early days of shipping by rail all kinds of cattle were crowded into square open cars without regard to bruises or broken legs, which made the meat unfit for human food. Little provision was made for feeding or watering on the road.¹⁶ Railroads everywhere through the West sought for cattle freight after the experiment was made by the Hannibal and St. Joseph line from Abilene. Competition goaded lines to provide stock yards and better care. Facilities for feeding and watering were essential. The Northern Pacific in 1885 met this need by disembarking the cattle at places where the pasture was good, allowing them to feed several hours each day. Trains devoted to carrying cattle in this manner cost forty or fifty dollars per day. Free passage was granted the proprietor, who usually took a passenger train, and to a certain number of cowboys, who had a special car attached to the cattle train.¹⁷ Other railways took a better plan and began improving their cars. By 1885 the southern lines had begun using improved cars. Several of the lines made extra charges for their use. The Chicago, Alton and St. Louis line was the first to notify the Stock Growers' Association that no extra charge would be made for transportation in stable cars. These cars were separated into compartments and provided for feeding and watering in the car.¹⁸

Several kinds of improved cars came into general use. One of the best of these in 1888 was the Burton car, but it had the disadvantage of being divided into compartments permanently,

¹⁵McCoy, *Historic Sketches of the Cattle Trade in the West and Southwest*, Ch. III.

¹⁶*House Misc. Docs.*, 50 Cong., 2 Sess., No. 139, p. 361.

¹⁷Bancroft, H. H., *History of Washington, Idaho and Montana*, 736-7.

¹⁸*House Misc. Docs.*, 50 Cong., 2 Sess., No. 139, p. 333.

which interfered with return freight. The advantage of the improved car is shown by the report of Erskine R. Merrill, general agent of the Burton Stock Car Company. He shows that cattle weighing 935 pounds in Winslow, Arizona, lost only fifty-three pounds on their way to Kansas City, a trip of 1204 miles. The trip was made in seventy-two hours, during which the cattle had been fed with hay and watered twice a day. A trip of 1196 miles in the ordinary cars was made in five days. The cattle were unloaded at feeding stations and lost on an average one hundred eighty-eight pounds per head. The Burton cars showed the saving of one hundred thirty-five pounds per head. The Newell car was the adaptation of the old car to the conditions. It carried watering troughs and feed racks which could be folded out of the way, to permit the carrying of freight. Another improvement was modeled on the Pullman passenger car. It had forty two-inch steel-tired *papier maché* wheels, elliptic springs, Westinghouse air brakes, and automatic couplers to prevent jarring when stopping or starting. Cattle were driven into these cars and boxed off in separate compartments by transverse slats lowered from the roof. There was enough room in each stall for the animal to lie down at will. Food was dropped from a bin in the roof into mangers in the side of the car. Water also from a tank in the rear was supplied to troughs at the side of the car by pipes which ran around the car on the outside. Fan wheels at each end and a double roof kept the car well ventilated in the warmest weather.¹⁹

While the facilities for shipping live stock were being improved, the methods for transporting dressed beef were being developed. The invention of refrigerator cars in 1868 reduced the cost of transportation considerably. It is estimated that an average live beef weighs 1250 pounds, while the dressed carcass weighs about 700 pounds. The animal is in better condition for beef the nearer the range he is slaughtered, for he loses a considerable amount of flesh during his long ride, besides the expense of feed and care on the journey is considerable. The first fresh beef was shipped in a refrigerator car from Chicago to Boston in September, 1869, but this system of shipping beef did not come into general use

¹⁹*House Misc. Docs.*, 50 Cong., 2 Sess., No. 139.

until about 1875.²⁰ The arbitrary freight rates demanded by the railroads limited the shipping of packed meat for several years. In 1885 the rates were seventy cents per hundred weight against forty cents for live stock from Chicago to New York. This was before the days of the Interstate Commerce Commission.²¹ But in 1908 it was estimated that the saving was \$2.25 to \$2.50 per head from Kansas City to New York and \$13.60 to \$16.70 from Chicago to Liverpool by shipping the packed meat instead of the live animal.²²

Railroads brought competition into the beef market, which proved to be a great advantage to the consumer. This is shown in a government report of 1870, which says:

Beef and mutton are furnished to the San Francisco market chiefly by a few butchers who own considerable areas of pasture land near the city, and buy up great numbers of cattle. They agree on the price charged for beef, and before the competition of the Pacific Railway small dealers accepted their prices. But markets have been affected by receipt of beef slaughtered in Wyoming Territory and shipped in a frozen condition in refrigerator cars to San Francisco, where it is sold at eight or ten cents per pound, where California beef would otherwise sell for twelve or fifteen cents.²³

While the railroad increased the profits of the cattle industry temporarily, it brought in the settler. Limitation of the ranges was inevitable and much dreaded by the cattle growers.

Railroads eventually displaced the long drive. In 1884, 416,000 cattle, the largest number recorded, were driven to northern pastures from Texas. In 1888, 50,000 would cover the number driven over the same route, for which decrease the Texas and Denver Railroad was responsible. This trail was entirely abandoned in 1890.²⁴

There are drives yet, but they are insignificant in the larger sense of the term, for they only traverse the distance from the range to the nearest shipping station.

(Continued.)

²⁰*University of Illinois Agricultural Experiment Station Circular*, No. 169, p. 7.

²¹*House Misc. Docs.*, 48 Cong., 2 Sess., II, No. 25, p. 245 et seq.

²²*University of Illinois Agricultural Experiment Station Circular*, No. 169, p. 7.

²³*House Ex. Docs.*, 41 Cong., 3 Sess., Vol. 13 (not numbered), p. 246.

²⁴*University of Illinois Agricultural Experiment Station Circular*, No. 169, p. 7. *House Misc. Docs.*, 50 Cong., 2 Sess., No. 139, p. 333.